

CHEMISTRY PROJECT

Acids, Bases and Salts

The chemistry of everyday substances

PRESENTED BY
Student Name

SUBJECT
Chemistry

CLASS / YEAR
Class XI



Agenda

01

Introduction

02

Concepts

03

Experiment

04

Applications

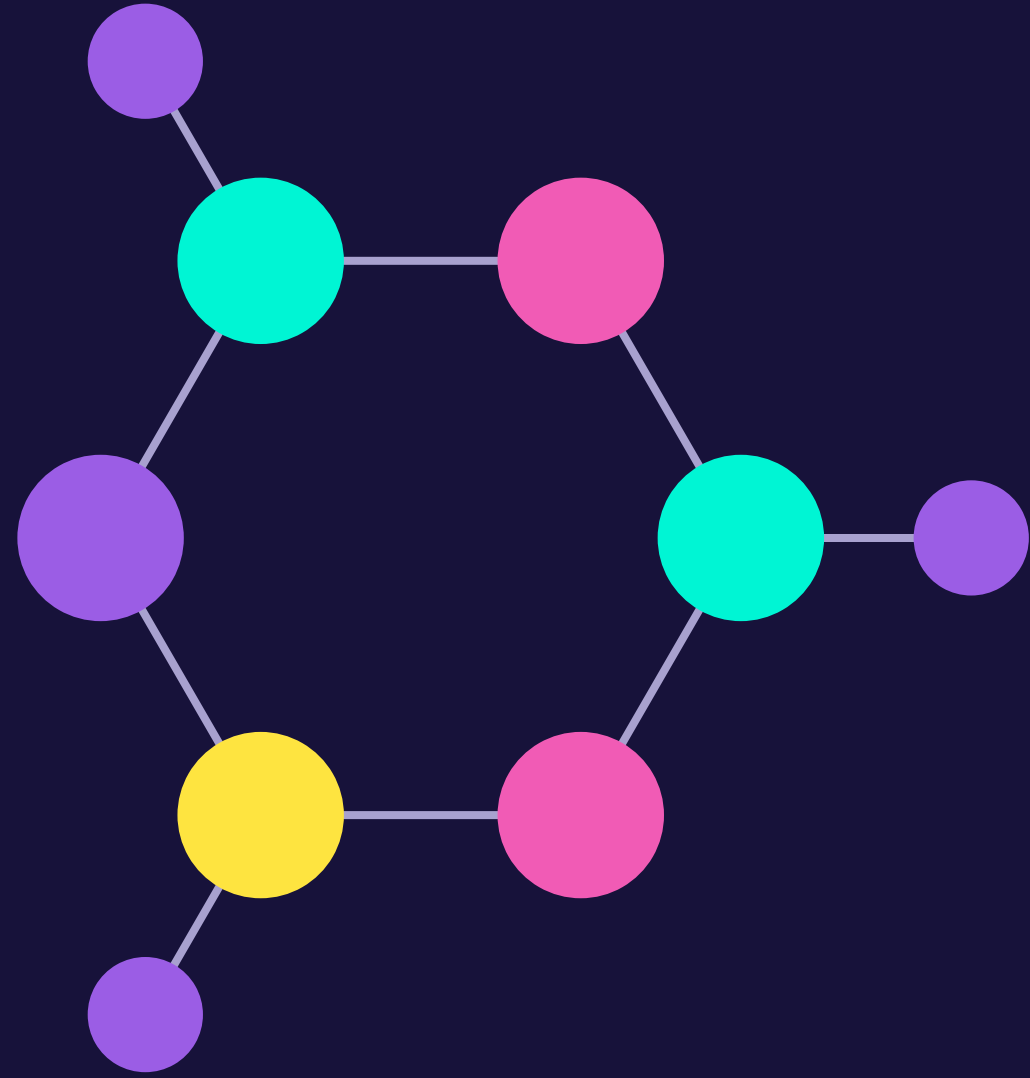
05

Summary



01

INTRODUCTI ON



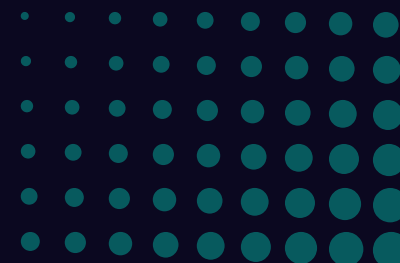
What is acids and bases?



Diagram

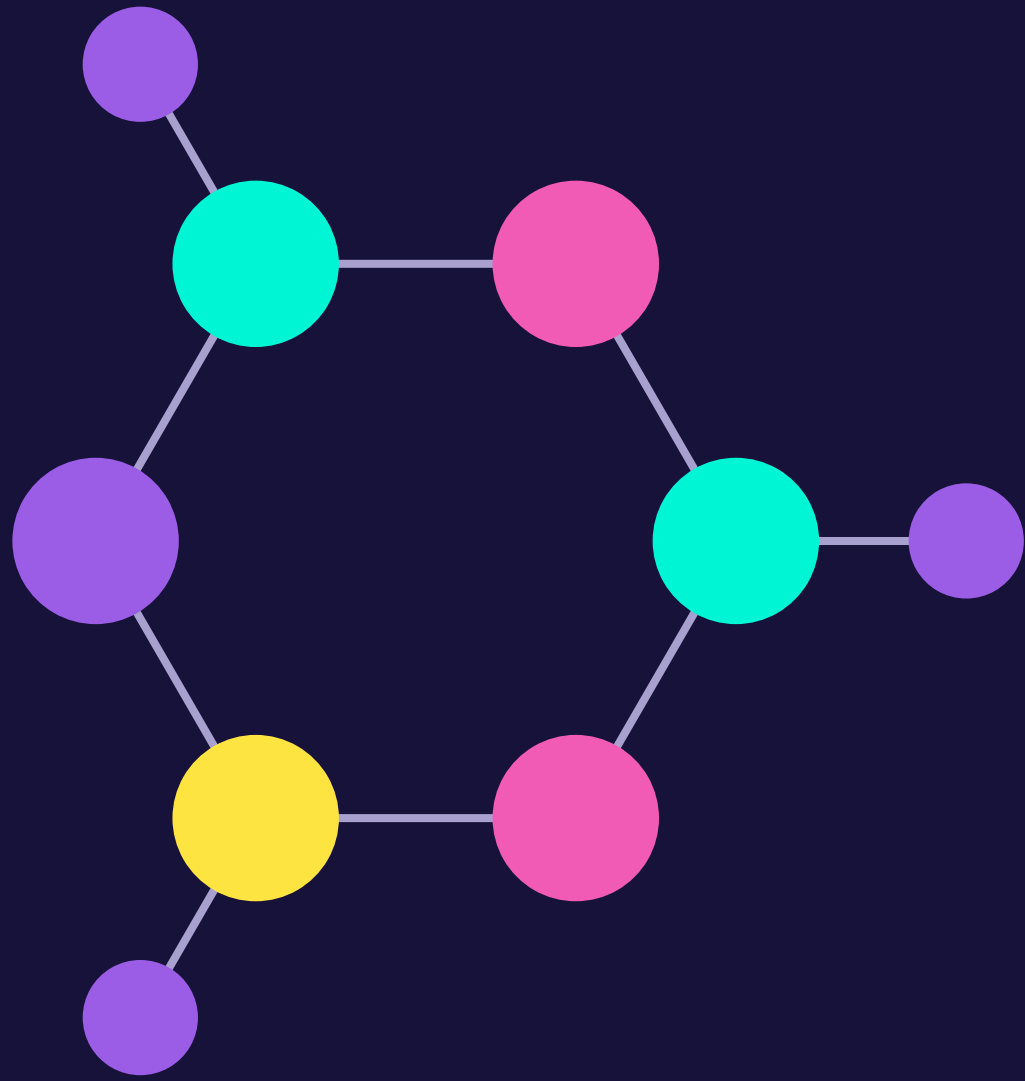
Acids release hydrogen ions in water, bases release hydroxide ions, and the two react to form salts and water.

We meet them every day — lemon juice, soap, baking soda and table salt are all part of this family.



02

CONCEPTS



Key concepts

01

Acids

Sour, turn blue litmus red,
pH below 7.

02

Bases

Bitter, soapy, turn red
litmus blue, pH above 7.

03

Salts

Formed when acids and
bases neutralise.



Neutralisation



Acid

e.g. hydrochloric acid



Base

e.g. sodium hydroxide



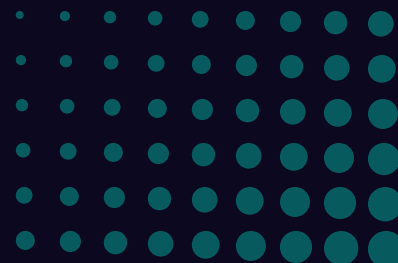
React

Ions combine



Products

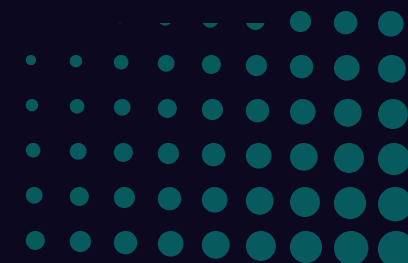
Salt and water



pH of common substances

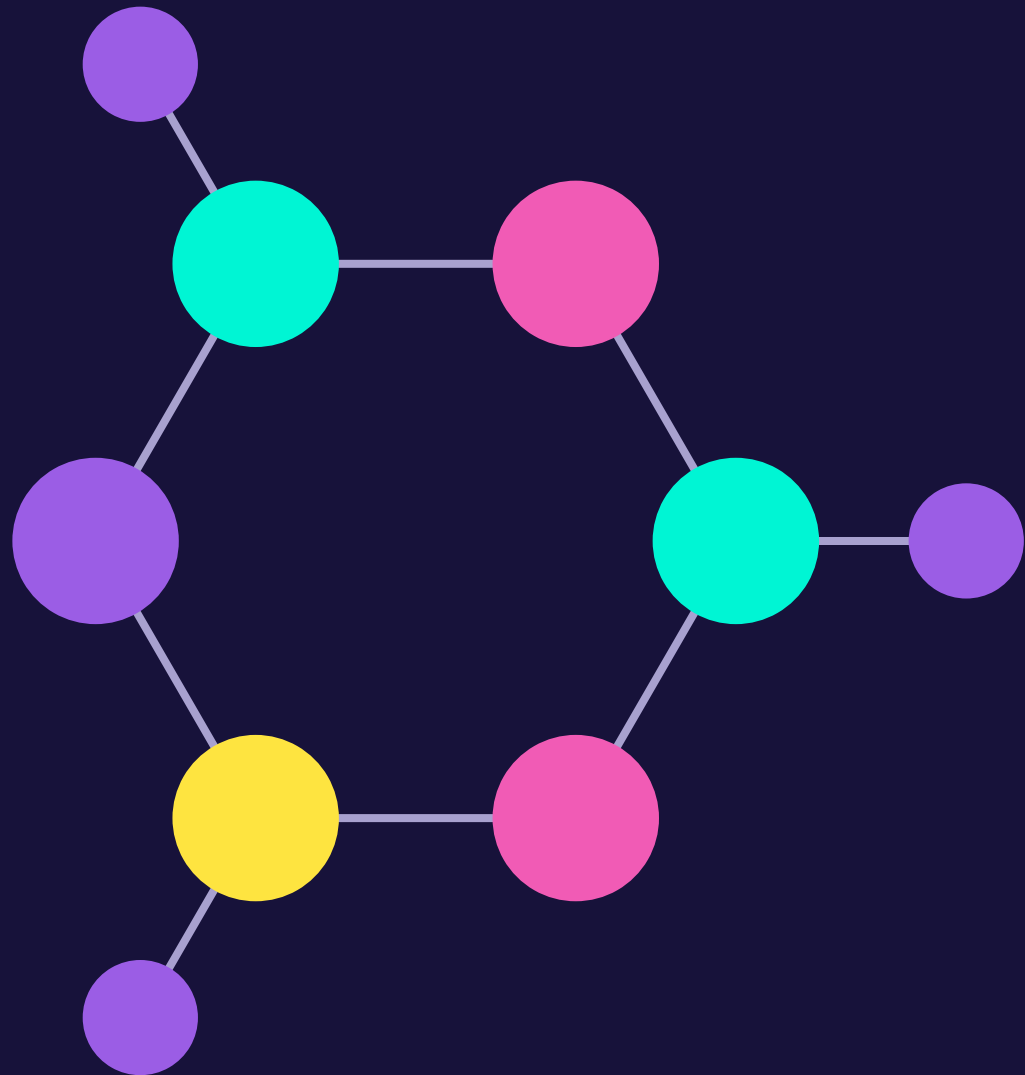
Substance	pH	Nature
Lemon juice	2	Acidic
Milk	6.5	Slightly acidic
Pure water	7	Neutral
Baking soda	9	Basic
Soap solution	10	Basic

Reference values for illustration.



03

EXPERIMENT

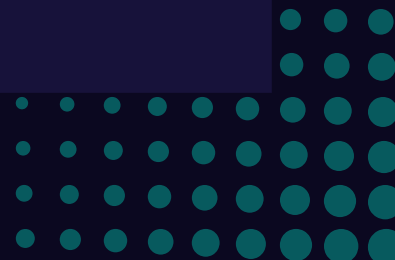


Experiment

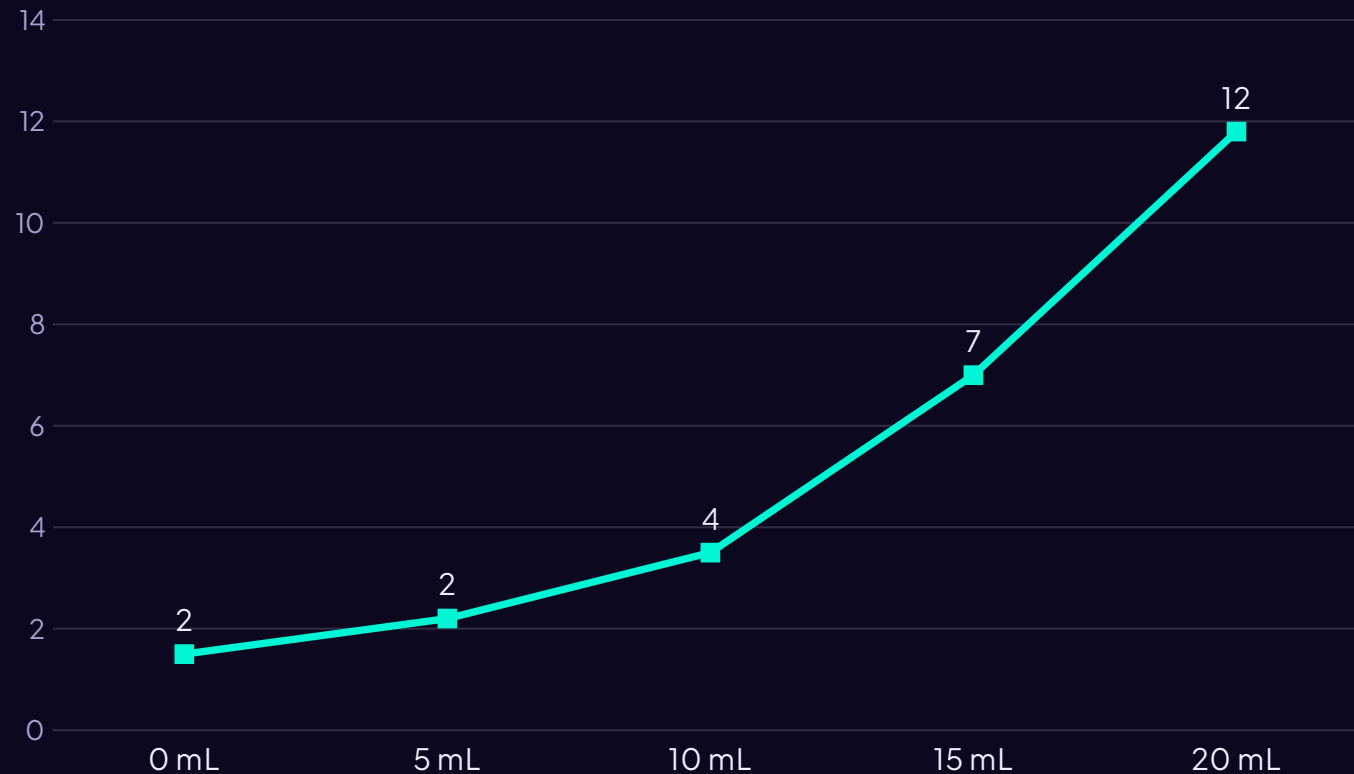
- Prepare a natural indicator from red cabbage
- Add it to small samples of household liquids
- Note the colour change for each
- Arrange the samples from acidic to basic

SAFETY

Wear gloves and goggles; never taste chemicals.

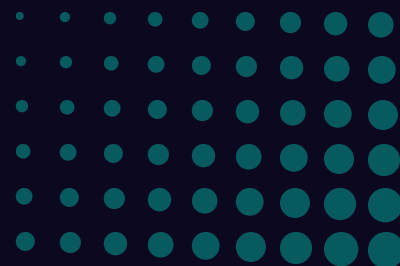


pH during neutralisation



The pH jumps sharply near the neutral point (sample data).

Sample data for illustration — replace with your own figures.



Real-world applications



Image 1

Medicine

Antacids neutralise stomach acid



Image 2

Farming

Lime corrects acidic soil



Image 3

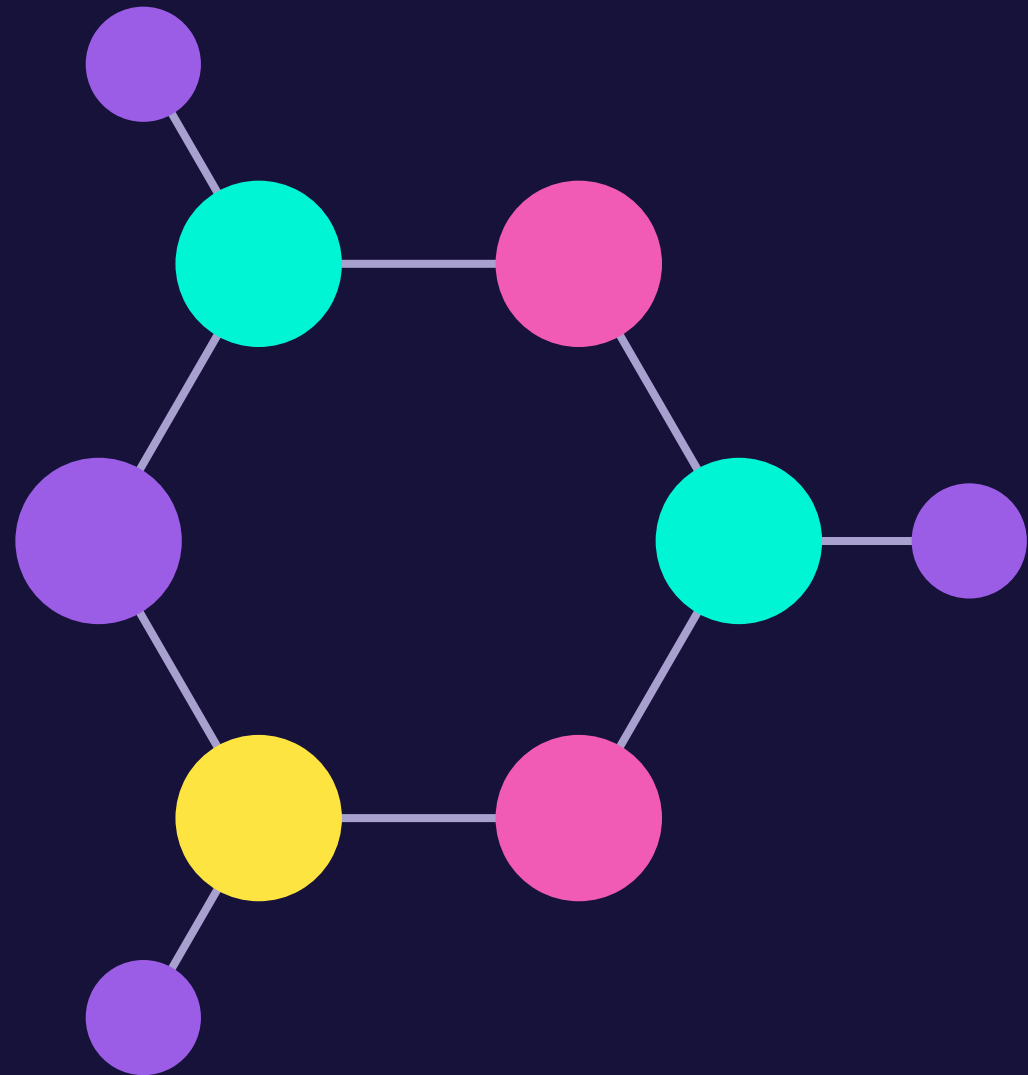
Cleaning

Soaps and detergents are basic



04

SUMMARY



Quick facts

0–14

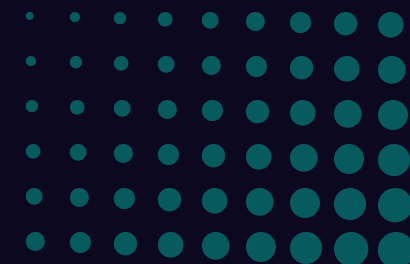
the pH scale

7

neutral pH of pure water

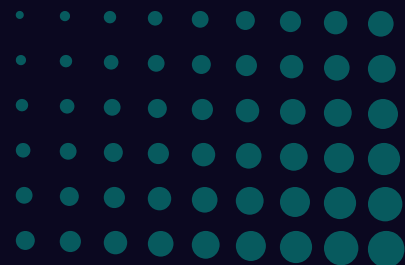
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approximate pH of
stomach acid



Summary

- Acids have pH below 7, bases above 7
- Indicators show acidic or basic nature
- Neutralisation forms salt and water
- They are used in medicine, farming and cleaning



Thank you

Questions?

Student Name · Chemistry